UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/687,526	10/12/2000	Eric Peel	07316/080001	1042

			EXAMINER
7590	08/31/2004		ANDERSON, MATTHEW D

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ART UNIT	PAPER NUMBER
2186	

DATE MAILED: 08/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/687,526	PEEL ET AL.
	Examiner	Art Unit
	Matthew D. Anderson	2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>02 August 2004</u> .

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>2-7,9-11,14-19 and 21-26</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>2,7,9-11,14-19,21 and 26</u> is/are rejected.

7) ☒ Claim(s) <u>3-6 and 22-25</u> is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>12 October 2000</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 2, 9-11, and 14-19, and 21 are rejected under 35 U.S.C. 102(b) as being

anticipated by Thome *et al.* (US Patent # 5,604,884) and Macachor (US Patent 5,452,432).

3.   With respect to claims 2, 9, 10-11, 14, 17, and 21, Thome *et al.* disclose:

a memory device comprising a plurality of memory elements, each memory elements

having an associated address; a client device; and a bus to pass data between the memory device

and the client device, as shown in figure 3;

determining valid bytes in an m-byte word accessed from a burst memory, comprising:

receiving a plurality of access parameters; and generating an m-bit enable word from the access

parameters and a value of m, said m-bit enable word including at least one valid bit

corresponding to at least one valid byte in the m-byte word, by teaching in column 7, line 61,

through column 8, line 4, that the CPU 52 operates in a similar manner as the i486

microprocessor, where it asserts an address status signal ADS* indicating that a new valid bus

cycle is currently being driven by the CPU 52. When the ADS* signal is asserted, the CPU 52

also drives a signal M/IO* indicating whether the cycle is a memory or I/O operation, a signal

W/R* indicating whether the cycle is a write or a read operation and a signal D/C* indicating a

data or control cycle. The CPU 52 also asserts eight byte enable bits BE7*-BE0* indicating

which bytes of the PD data bus are to be read or written by the CPU 52. In general, the cycle is

terminated by an external device asserting a burst ready signal BRDY* to the CPU 52, indicating

that the external device has presented valid data for a read cycle or has accepted data in response

to a write request.

4.   With respect to claim 18, Thome *et al.* disclose determining whether the access is a last

access required to satisfy a client request, by teaching in column 5, lines 4-7, that after the last

rising edge of the CLK signal in a burst cycle, the ADV* signal is negated so that remaining

CLK cycles are ignored.

5.   With respect to claim 19, Thome *et al.* disclose the bus comprises a read bus and a write

bus, as shown by the busses in figure 1 connecting the data in-register and output buffer to the

memory array.

6.   With respect to claims 2, 9, 14, and 21, Thome *et al.* teach all other limitations of the

parent claims, as discussed above, but fail to specifically disclose the request access parameters

including a first address and a byte count value. Macachor teaches in column 3, lines 49-53,

transmission parameters for burst length, starting address, block size, block count, and byte

count.

7.   With respect to claim 15, Thome *et al.* disclose the memory controller determining a

second address for a subsequent access for the plurality of access parameters, by teaching in

column 4, line 65-67, that clocking the counter causes the internal address to point to the next

consecutive address location in the memory array.

8.   With respect to claim 16, Thome *et al.* disclose the client storing the second address, by showing in figure 1, address register 26 connected to the clock signal and used to provide the internal address to the memory array.

9.   It would have been obvious to one of ordinary skill in the art, having the teachings of Thome *et al.* and Macachor before him at the time the invention was made, to modify the burst memory transmission taught by Thome *et al.*, to include a starting address and byte count, as with the burst memory transmission of Macachor, in order to provide user control to vary transmission parameters, as taught by Macachor.

10.   Claims 7 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thome *et al.* and Macachor.

11.   The difference between Thome *et al.* and Macachor and the claims is the claims recite the value of m being thirty-two, while Thome *et al.* discloses theirs to be eight. However, this specific size value does not have a disclosed purpose nor is it disclosed to overcome any deficiencies in the prior art. As such, the size of m may have been embodied in a number of values. Accordingly, it would have been an obvious matter of design choice to utilize the 8-byte word in the burst transmission of Thome *et al.* and Macachor, as disclosed supra, since applicant has not disclosed that a thirty-two byte word in the burst, as opposed to other sizes, overcomes a deficiency in the prior art or is for any stated purpose.

Allowable Subject Matter

12.   Claims 3-6 and 22-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13.   The following is a statement of reasons for the indication of allowable subject matter: the prior art does not teach or suggest the combination of claim elements specifically including truncating a portion of the first address to produce an n-bit word; generating an enable value from the n-bit word, the byte count value, and the m-value; generating an m-bit pre-shifter enable word from the enable value and the m value; and shifting the bits in the m-bit pre-shifted enable word by a value of the n-bit word.

14.   Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Amendment

15.   In response to the amendment filed 8/2/04: claims 2, 9, 14, and 21 have been amended.

Response to Arguments

16.   Applicant's arguments filed 8/2/04 have been fully considered but they are not persuasive.

17.   In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., generating an enable word based on the first address and byte count) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The claimed "access parameters" are not limited to consist solely of the first address and byte count. Therefore, the enable word need not be generated from the first address and byte count, it may be other portions of the "access parameters" from which it is generated.

18.   It seems the newly amended language is redundant. For example, claim 2 recites in line 4, "generating an m-bit enable word from the access parameters" and lines 6-7 recite "wherein the access parameters from which the m-bit enable word is generated". Similar instances are found in the other independent claims. Once again, the Examiner maintains that the current claim language does not limit the generation of the enable word solely from the first address and byte count. By use of the word "including" the combination may include elements other than those recited. (see Ex parte Russell, 153 USPQ 752 (BdPatApp&Int 1967).) Perhaps language more clearly stating what is including within the access parameters would be in order.

Conclusion

19.   The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action. The documents cited therein teach similar memory burst transmissions.

20.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Matthew D. Anderson whose telephone number is (703) 306-

5931. The examiner can normally be reached on Monday-Friday, 2nd Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Matthew Kim can be reached on (703) 305-3821. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Matthew D. Anderson
August 20, 2004